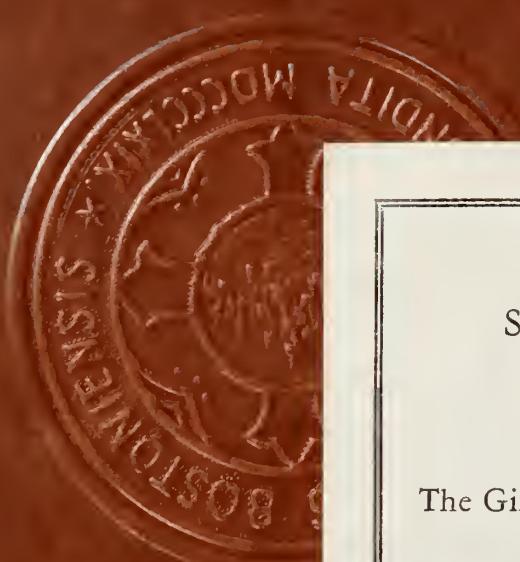


Smith, G.T. - Development and evaluation of a quick perception method in determining reading





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Thesis

DEVELOPMENT AND EVALUATION OF A QUICK PERCEPTION METHOD
IN BEGINNING READING

Submitted by

Geraldine Foster Smith

(B.S. in ED. Boston University, 1940.)

In partial fulfillment of requirements for
the degree of Master of Education.

1941

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I wish to express my sincere appreciation to Dr. Donald D. Durrell whose continued patience, guidance and encouragement have made possible the completion of this study.

I wish also to express my appreciation to Willard B. Spalding, Superintendent of Schools, Belmont, Massachusetts, Miss Eleanor H. Hayes, Director of Guidance and Research, and to the four elementary school principals and ten first grade teachers who cooperated so generously and graciously with me.

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CHAPTER I

Statement of the Problem

A faint, light-colored watermark of the British Museum's Egyptian Wing facade is visible in the background. The watermark features four large columns supporting a classical entablature, with a pediment above. The facade is set against a bright sky.

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Chapter I

Statement of the Problem

The purposes of this study are to develop and evaluate a method of quick perception in beginning reading.

The problem is first, to determine a vocabulary for the purpose of conducting a systematic review in quick perception, second, to construct contextual clues which, when supplied by the teacher, will be most apt to produce attention to meaning as well as the rapid perception of the desired words, third, to conduct a systematic review with a group of children controlled by an equated group to find out whether there are any significant differences in the ability to perceive rapidly among children so taught, as compared with those trained as their respective classroom teachers see fit. Lastly, to determine, if possible, what relationship, if any, exists between the ability to perceive rapidly in a given reading situation and general reading achievement.

Previous Pertinent Investigations

The first important experimental studies on visual perception in reading were made by Cattell ^{1/} and published in 1885. Up to this time it was generally believed that when reading, one perceived every letter of every word separately. Cattell discovered by means of short exposure methods that the time necessary for naming words was considerably less than that needed for naming individual letters. He found also that long

^{1/} Cattell, J. McKeen, "The Inertia of the Eye and Brain", Brain, Vol. 13, pp. 311-312.

words required only one-thousandth of a second more than short words. He found that phrases and sentences were grasped as wholes, or hardly any of the words or letters were perceived. Furthermore, when unrelated letters or words were read as rapidly as possible, the reading was nearly twice as slow as when they were combined into words and sentences respectively, thus indicating in the latter instance that reading was in larger units than letters.

Cattell 1/ is also credited with being the first person to show that the eye is capable of perceiving several letters or even several words at one time.....on an average consciousness can at one time grasp four numbers, three or four letters, two words, or a sentence composed of four words. The letters are slightly more difficult to grasp than the numbers, every combination of numbers making a number that gives "sense". Not as many words as letters can be grasped at one time, but three times as many letters when they make words can be grasped when they make a sentence as when they have no connection."

Goldschneider and Muller 2/ experimenting with short exposures of letters, words and phrases in order to determine whether reading is done letter by letter or by whole words, concluded that words are composed of determining and indifferent

1/ Cattell, J. McKeen, "The Inertia of the Eye and Brain", Brain, Vol. 13, pp. 311-312.

2/ Goldscheider, A. and Muller, R.E., "Zur Physiologie und Pathologie des Lesens" reviewed by Huey, Edmund B., The Psychology and Pedagogy of Reading, MacMillan, 1908. Chapter V.

letters, most of the determining letters being initial letters and consonants. They also concluded that recognition is dependent upon both the number of the letters and the familiarity of the word. Therefore, reading is done at times by letters and again by word wholes, depending upon the familiarity of the word involved.

Erdmann and Dodge 1/ in their studies on perception substantiated for the most part, the findings of Cattell. They also maintained that reading is done by units of words or groups of words, offering by way of example that in about half the cases they tried, a word can be recognized at a distance too great to recognize any of the individual letters of which it is composed.

After extensive studies of eye movements by means of photographic records, Dearborn 2/ concluded: (1) "That words are usually perceived as wholes and not successively by letters" (2) "Letters and words frequently and regularly found together tend to be formed by long association into one complex whole for which certain elements are selected as cues." (3) "The slow reader has a narrower span or working extent of attention. This may be simply (in addition to longer pauses) another evidence of slower perception and assimilation processes."

1/ Erdmann and Dodge, reviewed by Tinket. "Visual Apprehension and Perception in Reading", Psychology Bulletin, Vol. 26, 1929.

2/ Dearborn, Walter F., The Psychology of Reading, Columbia University Contributions to Philosophy and Psychology, Vol. 14, No. 1.

Payne ^{1/} made a study attempting to establish norms for short exposures in reading. The experiments were conducted on four hundred school children in grades two through five. These experiments were made with the aid of a portable tachistoscope with an exposure speed of one-tenth of a second. Each child was tested individually and his entire response to each exposure carefully noted. In part, Payne concluded: "The type of error made--that is, whether the response to a word is another word similar in shape, in initial letter, in final syllable, or in idea--depends both upon the word in question and the child's familiarity with it. Certain familiar words with elements similar to those in other more familiar words tend to elicit the same response from the majority of children. Certain other words with wholly strange syllables tend to call forth a different response from each child. This tendency obtains for superior fifth-grade readers as well as for poor readers in the second grade."

Relation of Present Study to Previous Experimentation

The present study relates to those previous in the field, in that it is further experimentation in visual perception. It supplements previous experimentation in the field of visual perception in that it is based upon their findings to the effect that association or familiarity, or both, influence the speed of visual perception. Reviewed in brief, Cattell ^{2/} discovered

^{1/} Payne, Cassie Spenser, The Derivation of Tentative Norms for Short Exposures in Reading, Harvard Univ. Press 1930 pp.58-59
^{2/} Cattell, J. McKeen, "The Inertia of the Eye and Brain" Brain Vol. 8 pp. 295-312, 1885.

that when unrelated letters and words were read as rapidly as possible the reading was nearly twice as slow as when they were combined into words or sentences. Goldscheider and Muller 1/ discovered that recognition is dependent both on the number of letters and the familiarity of the word. Dearborn 2/ found that "Letters and words frequently and regularly found together tend to be formed by long association into one complex whole for which certain elements are selected as cues." Payne 3/ on the other hand, concluded that it depended upon the individual word and the child's familiarity with it for the response invoked.

The present study differs from previous experiments in that during the entire investigation which was conducted in the form of a systematic review, emphasis on meaning and word usage was stressed by contextual clues supplied by the instructor as a means of attaining rapid visual perception of individual words and phrases. Whereas, in previous studies, the investigators were primarily interested in whether or not words were perceived letter by letter, as word wholes, or as groups of words.

That there is need for a study of this type seems evident due to the fact that there is no available data indicating

- 1/ Goldscheider, A. and Muller, R. E., "Zur Psychologie und Pathologie des Lesens" reviewed by Huey, Edmund B., The Psychology and Pedagogy of Reading, Macmillan, 1908. Chapter V.
- 2/ Dearborn, Walter F., The Psychology of Reading, Columbia University contributions to Philosophy and Psychology, Vol. 14, No. 1.
- 3/ Payne, Cassie Spenser, The Derivation of Tentative Norms for Short Exposures in Reading, Harvard University Press 1930 pp. 58-59.

whether or not children possess greater ability in rapid visual perception when taught by the aid of meaningful contextual clues, as compared with those children who have been trained as their individual classroom teachers have seen fit. Furthermore, most of the previous studies reviewed above indicate that visual perception is more rapid when association or familiarity or both play a part.

Chapter II

Materials and General Plan of Study

Chapter II

Materials and General Plan of Study

Review Purposes of Study

The purposes of this study are first, to determine and construct contextual material to be supplied by the instructor embodying a given vocabulary most likely to produce attention to meaning as well as to word formation when used in a systematic review; second, to discover whether there are any significant differences in the ability to perceive visually with rapidity among children so trained, as compared with those who have been trained as their individual classroom teachers have seen fit; third, to discover whether or not any relationship exists between the ability to perceive rapidly in a given situation and in general reading achievement.

Description of Materials

Selection of Vocabulary: The vocabulary selected as essential for such a review was selected from that included in the New Work-Play Books by Gates and co-authors 1/, Jim and Judy, primer, and Down Our Street, first reader--this being the reading system in use in the town where the study was made.

The vocabulary in any reading system consists roughly of two elements--the words considered as essential to the level of reading difficulty, and the supplementary words necessary to incorporate the former into stories of interest to the reader. No two authors of reading systems consider exactly the same

1/ Gates, Arthur I., Huber, Peardon, The New Work-Play Books Macmillan 1939.

vocabulary vital at a given level of difficulty. This is shown by the following studies:

In 1921 Packer 1/ tabulating the vocabularies of ten first readers, found that out of a total of 3,541 different words, 2,048 appeared four times or less, and only 96 were common to all ten readers.

Selke 2/ made a study of the vocabularies of twelve primers and found a total of 1,636 words with only thirty-eight words common to all twelve. He also found that the vocabularies of any two of these primers were so different that the two books could not be considered as supplementary to each other.

Gross 3/ made a study of the vocabularies of ten preprimers discovering that out of 8,831 running words there were 393 different ones of which 238 appeared four or more times in the total count. Hayward and Ordway 4/ tabulated the different words appearing in fifteen preprimers finding a total of 350, or 43 less than Gross reported; however, only three words appeared in all fifteen books and only eighteen words in ten or more.

Hockett and Neeley 5/ studied the vocabularies of thirty-

- 1/ Packer, J. L., "Vocabularies of Ten First Readers" Twelfth Year Book National Society for the Study of Education Part II 1924. Chapter IX. pp. 127-144.
- 2/ Selke, Erich "A Comparative Study of the Vocabularies of Twelve Beginning Books in Reading", Journal of Educational Research XXII December 1930 pp. 369-374.
- 3/ Gross, Arline E. "A Preprimer Vocabulary Study" Elementary School Journal XXXII September 1934 pp. 48-56/
- 4/ Hayward, W. George and Ordway, Nancy M. "Vocabularies of Recently Published Preprimers", Elem. School Journal XXXVII April 1937. pp. 608-617.
- 5/ Hockett, John A., and Neeley, Deta P. "A Comparison of the Vocabularies of Thirty-three Primers", Elementary School Journal XXXVII January 1937 pp. 351-352.

three primers finding a wide diversity in the vocabulary control, stating, "It will be seen that some of the books not only contain a high average repetition but have a few words which occur five times or less and a large proportion of words which appear ten times or more. In other books the average repetition is much less, and a considerable proportion of the words are repeated only a few times."

Hockett and Neeley 1/ in studying the vocabularies of twenty-eight "widely used" first readers found a total of nearly 2,800 different words, or only four-fifths of the number reported by Packer in 1921, in his study of ten first readers. "The typical first reader of the last twelve years presents slightly more than 9000 running words and slightly less than 600 different words with about 15.6 running words to each new word."

Dolch 2/ in his study found that primers vary in efficiency in the manner of securing a mastery of the vocabularies included. He believes that children should attain a satisfactory vocabulary on the primer level before advancing to more difficult material.

Gates 3/ recommends that the rate of new words introduced in reading materials should be greatly reduced as compared with early practices, and that the number of repetitions provided for should be greatly increased.

1/ Hockett, John A., and Neeley, N. Glenn, "The Vocabularies of Twenty-eight First Readers" Elementary School Journal XXXVII January 1937 pp.351-352.

2/ Dolch, Edward W. "The Efficiency of Primers in Teaching Word Recognition" Journal of Educational Research XXXIII Dec. 1934 pp. 271-275.

3/ Gates, Arthur I, "Interest and Ability in Reading" Macmillan Co. 1930 pp.3-41.

Therefore, it seemed wise to check the vocabulary appearing in the new Gates primer 1/ and first reader 2/ with a minimum essential vocabulary for grade one. The vocabulary chosen for this purpose was the one compiled by Durrell 3/. All words appearing in Gates books but not appearing in the Durrell vocabulary were discarded; likewise, those on the Durrell list not appearing in Gates were excluded. The resultant list was then checked with the actual achievement of the children concerned to ascertain whether or not the words had been previously taught.

The final list totaled 163 words.

a	bear	can	find	had	in
about	bed	car	fine	has	into
again	been	cat	first	have	is
all	best	children	for	he	it
am	big	come	friend	head	just
an	black	cut	from	her	know
and	blue	day	get	here	laugh
are	boy	did	girl	him	let
ask	brown	do	give	his	letter
at	but	dog	go	house	like
away	by	door	good	how	little
back	call	down	got	I	live
be	came	eat	gray	if	long

1/ Gates, A. I. and co-authors, Jim and Judy, primer 1939.

2/ Gates, A. I. and co-authors, Down Our Street, first reader '39

3/ Durrell, Donald D. "Improvement of Basic Reading Abilities" World Book Company 1940. "Remedial Reading Vocabulary Frequency-of-Use Levels" 1, 2, 3, pp. 350-351.

look	no	present	still	too	went
made	not	put	tell	took	what
make	now	rabbit	thank	tree	when
man	of	ran	that	two	where
many	off	red	the	until	which
me	on	said	their	up	white
milk	one	saw	them	us	why
morning	once	school	then	very	will
mother	other	see	there	walk	with
much	or	send	they	want	work
my	out	she	thing	was	would
never	over	sleep	this	water	yes
news	play	so	time	way	you
night	please	some	to	we	your

years

Description of Contextual Materials: The obtained vocabulary was then inculcated in context in the form of single sentences and in stories for the purpose of giving the children association with the words other than those already encountered in the printed text. As far back as 1904 Chambers ^{1/} stated that "no concept comes to a child perfected." Rather it is for the teacher to discover the extent of the child's concept and devise the best means of clarifying it.

Betts ^{2/} says "One of the most important factors contri-

^{1/} Chambers, Will Grant "How Words Get Meaning" Pedagogical Seminary XI March 1904 p. 50.

^{2/} Betts, Emmett Albert The Prevention and Correction of Reading Row, Peterson and Co. 1936 pp. 207.

butting to word recognition is that of word meaning. A rapid rate of association of ideas which contribute to fluent and easy reading is not possible until the child has formed many associations with words and groups of words."

The context was devised in as far as possible so as to give highly accurate contextual clues. Thus allowing the children to supply the word from auditory perception, although it would be flashed before them at the same time they were expected to supply it. Hence they would comprehend the word to be supplied, see it, and say it.

First the words were presented individually in single sentences--for example; A horse is big, a kitten is little.

The first fifty sentences constructed were read to two groups of ten children each, selected from a remedial reading class. These children were not among those later included in the experiment. They ranged from seven to ten years of age and all had mental ages exceeding their reading ages as shown by the results of Binet Intelligence Tests 1/ and Gates Primary Reading Tests 2/. These children were expected to supply the desired review word from auditory perception alone, or the sentence was discarded and a new one constructed.

The same vocabulary was then grouped into phrases 3/ and embodied in single sentences. Again the contextual clues were

1/ Revised Stanford-Binet Scale, Form L Copyright 1937
Lewis M. Terman and Maud A. Merrill.

2/ Gates Primary Reading Test, Types I, II, III. Bureau of Publications, Teachers' College, Columbia University, New York City. (1931 type 2) (1926 types 1 and 3)

3/ A few nouns were included with which the children were already familiar in order to increase and vary interest of context.

kept as highly accurate as possible. However, regardless of the sensitivity of the context, this step was more difficult for the children because it necessitated actual word recognition if the phrases were to be read correctly when flashed....an example being: Joan is a girl, Peter is a boy.

Lastly many of the single words and phrases were put into stories. This phase demanded an even higher level of perception because it necessitated longer spans of interest and concentration, as well as the ability to actually read the word or phrase if it was to be supplied accurately. Examples of this phase are: (1) "What happened, Dad? Why are we stopping here?" said Bob as he let the tiny white ball roll unheeded to the floor.

"I don't know," replied his father, "but I do not believe we are in any great danger."

(2) Again the big dog tried to drag his master out of the water. It was impossible because the boy's wet clothing made him too heavy.

The stories to be used in the experiment were read just as stories to the same children from the remedial class before using them with the experimental group to ascertain whether or not they contained context of sufficient interest to children in the primary department.

Description of Lantern Slides: The words and phrases to be taught in the exercises were made into lantern slides by typing them onto yellow cellophane that had been backed and faced with red carbon paper. They were then enclosed in cardboard masks 1/1 Keystone View Company, Meadville, Penna. Supplied the Masks

to permit handling without injury. A total of 320 lantern slides was made.

A daylight lantern slide projector was used to which was attached a variable shutter 1/ with the following speeds: Time, bulb, and exposures $1/15$, $1/10$, $1/5$, and $1/25$ of a second.

The projection screen used was a piece of heavy white mounting board, 24" by 36", such as may be procured at any art supply store. A five-inch panel was outlined across the center with black "passe partout". This enabled the children to direct their focus and know where to expect the flashed word or phrase. The screen was placed on a wall about six feet away from the children, with the outlined panel slightly above the eye level to insure all with an opportunity for unhampered vision.

Selection of Pupils: Four schools were chosen which permitted opportunity for the selection of one hundred children in grade one having similar educational experiences, comparable home backgrounds and equivalent mentality.

Before the pupils were selected, the first grade teachers of these schools were called together and the experiment outlined. Their cooperation was enlisted in the selection of twenty-five children from each school. Children who in their estimation had average or better mentality yet were not reading as well as they should, therefore would benefit by extra review.

The teachers' selections were checked for derived intelligence quotients 2/ already on file, and in each instance,

1/Bausch & Lomb Optical Co. Rochester. Flash-Meter, Keystone, Pa.

2/Revised Stanford-Binet Scale Form L con. 1937 Lewis Terman & Maud Merrill.

average or better mentality was indicated. Therefore, the group was accepted in its entirety on the basis of classroom teacher judgment.

The children were then divided into two groups of fifty each, one becoming the experimental group and the other the control group. In each group there happened to be thirty-four boys and sixteen girls. It is interesting to note, Durrell ^{1/} says, "Boys have much more difficulty in reading than do girls. In the study of 1130 children using Stanford-Binet as the criterion, 20 per cent of the girls were similarly retarded. Among the six thousand children given the Durrell-Sullivan Reading Capacity and Achievement Tests, 18 per cent of the boys were retarded as compared to 9 per cent of the girls.....The causes of the difference between boys and girls in reading achievement have not been established. The fact that girls mature earlier is offset in the first study by the fact that comparisons were based on mental age. Differences in oral-language achievement were equated in the second study."

TESTS GIVEN: All children were given four preliminary tests, three group type and one individual.

1. Detroit Word Recognition Test ^{2/} for the purpose of measuring achievement by a standardized test.
2. Word Recognition Test, constructed by the writer, based upon the vocabulary to be used in the experiment. A multiple

^{1/} Durrell, Donald D. Improvement of Basic Reading Abilities World Book Co., 1940 pp. 281.

^{2/} Detroit Word Recognition Test Form D. World Book Co. (1929)

choice type of test in which the word dictated was encircled by the children.

3. Visual Perception Test constructed by the writer also based upon the vocabulary to be used in the experiment. A multiple choice type test in which the desired word was flashed on the screen and the children encircled the word they saw. Exposure was one-fifth of a second.

4. Individual Oral Reading Test, constructed by the writer, based upon the vocabulary to be used in the experiment but supplemented by words found in Gates primer and first reader in order to build an interesting paragraph of approximately 100 words.

The reading time was recorded with a stop watch, all errors checked, phrasing indicated and comprehension both aided and unaided noted.

Plan of Instruction

Experimental Group: This group was given ten minutes of systematic review three days a week for eight weeks. The fifty children were divided into six classes, four having eight children and two with nine, the small classes allowing informal teaching and greater participation on the part of every child.

The day's work was first presented in context prepared by the writer. Then the individual words or phrases were flashed without any contextual clues and the children were encouraged to acknowledge them by repeating the context originally presented or by using them correctly in original sentences.

A word calling forth incorrect responses was exposed on the screen and scrutinized. If the incorrect response involved was that of another word included in the review at any time up to that point that word was also exposed and similarities and differences noted. Both words were then included in the section of the review in which the children were urged to use the word correctly in an original sentence. The words were never flashed in the same order and words not calling forth accurate responses from all children were flashed at a greater frequency than those offering little difficulty.

During the first week the children were unable to perceive any word flashed at a speed more rapid than the exposure "Time" 1/. However, as they became more familiar with the process and less excited over the mechanism of the lantern their speed of perception was raised to $1/5$ and $1/10$ of a second for individual words and "Time" for phrases. After several attempts which produced failure in every instance, the writer was hesitant in continuing experiments with the speeds $1/15$ and $1/25$ of a second because it seemed important to keep the element of success constant. By so doing it was hoped the children would at all times feel capable of perceiving the word at the speed of exposure providing they were able to recognize it at all.

Control Group: The children in the control group were given an extra half hour's work in word perception each week for eight

1/ The word was exposed only as long as it took the writer to push the plunger on the cable release without stopping...Once to expose the word, then again to remove it from the screen.

weeks. This work took the form which in the classroom teachers' estimation was most vital to the children's needs. The following methods were used:

1. Word drill with flash cards
2. Phrase drill with flash cards
3. Phrases on the board
4. Stories and sentences dictated by the children, written by the teacher and later read by the class
5. Matching words
6. Original stories, dictated to and written by the teacher, then read by class
7. Jumbled sentences of three or four words that were re-written correctly by the children
8. Matching phrases and words to pictures
9. Building small words from one large one
10. Finding small words within large ones
11. Putting two small words together to make compound words
12. Playing WORDO 1/

Final Tests: All children were given four final tests. Three were group tests and one individual.

1. Word Recognition Test: The word recognition test constructed by the writer used in the preliminary testing was repeated for the purpose of noting gains.

2. Visual Perception Test: The test constructed by the

1/ Durrell, Donald D., Improvement of Basic Reading Abilities
World Book Co. 1940 pp. 186-187.

writer and used in the preliminary battery was repeated for the purpose of noting gains.

3. The Gates Primary Reading Test Types I and II 1/ were given to all children in grade one by the School Department of Guidance and Research. The results obtained by the one hundred children included in the experiment were given to the writer for the purpose of comparing scores with those made in the Detroit Word Recognition Test 2/ and used in the initial testing.

Individual Oral Reading Test: A paragraph of approximately one hundred words, constructed by the writer, and composed of practically the same words appearing in the initial oral reading test was given. The initial test was not repeated because it was feared familiarity might produce better results. Reading time was recorded with a stop watch, errors checked, and phrasing indicated. Recall, both aided and unaided, was noted.

This test was given for the purpose of noting and comparing rate of speed in reading, number of vocabulary errors and ability to phrase accurately, with the results obtained in the first test.

1/ Gates Primary Reading Test, Types I, II, and III Bureau of Publications, Teachers' College, Columbia University, New York City. (Types 1 & 3 1926) (Type 2 1931).

2/ Detroit Word Recognition Test Form D. World Book Co. (1929).

Chapter III

Analysis of Data

Chapter III

Analysis of Data

An analysis of the data has been made to show, first, the degree of equality between the experimental and control groups at the beginning of the study. They were compared for mentality, chronological age, and reading achievement. Second, further analysis shows the gains made by each group during the period of experimentation, and third, a comparison of the gains made by both groups.

Tables 1. and 2. show the similarity of both groups in mentality and chronological age, and Table 3. indicates the reading achievement as measured by a standard test.

Tables showing a Comparison of the Two Groups at the Beginning of the Experiment

Table 1.

Derived Intelligence Quotients based upon Stanford-Binet

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. M.	P.E. Diff.	Critical Ratio
Exp.	50	110.62	11.4595	1.104	1.150	1.535	.977
Con.	50	109.12	11.0992	1.069			

Table 1. shows that the mean Intelligence Quotient of the experimental group was 110.62 as compared with 109.12 for the control group. The critical ratio is .977 indicating that there is no significant difference in mentality.

Table 2.
Chronological Age

Group	No.	Mean Age	Standard Deviation	P.E.M.	Diff. M.	P.E. Diff.	Critical Ratio
Exp.	50	6.736	.4175	.0403	-.014	.0567	.247
Con.	50	6.750	.4135	.0399			

This table shows a mean chronological age of 6.736 years for the experimental group and 6.750 years for the control group. There is no significant difference in ages.

Table 3.
Detroit Word Recognition Test, Form D.

Group	No.	Mean Score	Standard Deviation	P.E.M.	Diff. M.	P. E. Diff.	Critical Ratio
Exp.	50	5.12	4.088	.385	-1.68	.506	3.32
Con.	50	6.80	3.406	.328			

Examination of Table 3., Total Scores, on Detroit Word Recognition Test, Form D, shows a mean total score of 5.12 for the experimental group and 6.80 for the control group. The critical ratio of 3.32 indicates a superiority in favor of the control group; however, this superiority is not significant.

Tables 4, 5, 6, and 7 are based upon the data derived from informal tests constructed by the writer and given to both

groups at the start of the experiment.

Table 4.

Word Recognition Test I
(constructed by writer)

Group	No.	Mean Score	Standard Deviation	P.E.M.	Diff. M.	P. E. Diff.	Critical Ratio
Exp.	50	12.00	4.5607	.439	-1.88	.624	3.015
Con.	50	13.88	4.6163	.444			

Table 4. shows the results of an informal multiple choice test based upon the vocabulary used in the experiment. The words were dictated and the correct answers circled. The experimental group had a mean score of 12.00 words and the control group 13.88 words. The critical ratio is 3.015, an indication of superiority in favor of the control group, but not significantly so.

Table 5.

Visual Perception Test I
(constructed by writer)

Group	No.	Mean Score	Standard Deviation	P.E.M.	Diff. M.	P. E. Diff.	Critical Ratio
Exp.	50	7.40	2.4146	.238	-1.56	.371	4.195
Con.	50	8.96	2.9564	.284			

The above table shows the results of an informal visual perception test of the multiple choice type. The correct words

were flashed on the screen at the speed of 1/5 of a second and the children circled the words they saw.

The results indicate superiority bordering on significance in favor of the control group, the mean score for the experimental group being 7.40 words correctly perceived and 8.96 for the control group. The critical ratio is 4.195.

Table 6.

Oral Reading Test I Rate of Words per Minute
(constructed by writer)

Group	No.	Mean Score	Standard Deviation	P.E.M.	Diff. M.	P. E. Diff.	Critical Ratio
Exp.	50	30.00	9.252	.894	-3.40	1.472	2.310
Con.	50	33.40	12.159	1.172			

Table 6. shows the rate of words read per minute recorded during an informal oral reading test composed of a paragraph of approximately one hundred words. The mean number of words read per minute by the experimental group was 30.00 and that of the control group 33.40, indicating a superiority of 3.40 words read per minute in favor of the control group. This difference is not significant.

Table 7.

Errors made in Oral Reading Test I

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. M.	P. E. Diff.	Critical Ratio
Exp.	50	29.58	11.5689	1.112	3.36	1.640	2.05
Con.	50	26.22	12.0884	1.163			

Table 7. shows that the experimental group made 3.36 more errors while reading the paragraph used in Oral Reading Test I than were made by the control group. The mean score for the experimental group was 29.58 errors and 26.22 for the control group. This difference indicates a superiority on the part of the control group but it is not significant.

Summarizing, there were no significant differences between the control and experimental groups at the beginning of the study. Such differences that did occur were in favor of the control group.

Examination of the Gains made by the Experimental Group

Table 8.
Word Recognition Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	12.00	4.5607	.439	11.66	.727	16.03
II	50	23.66	6.0150	.579			

Table 8. shows that the experimental group recognized a mean of 12.00 words in the initial test and 23.66 words when it was repeated at the close of the experiment. There was a gain of 11.66 words recognized. The critical ratio is 16.03 making it a significant difference.

Table 9.
Visual Perception Tests I and II

Test	No.	Mean Score	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	7.40	2.4146	.238	16.80	.698	24.20
II	50	24.20	6.8059	.656			

The above table shows that the experimental group recognized a mean of 7.40 words in the first test and 24.20 words in the second test, denoting a gain of 16.80 words which is significant.

Table 10.
Rate of Reading, Words Per Minute
Oral Reading Tests I and II

Test	No.	Mean Score	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	30.00	9.252	.894	23.80	1.983	12.02
II	50	53.80	18.447	1.774			

Table 10. shows that the experimental group increased their speed of oral reading 23.80 words during the eight weeks of systematic review. The mean rate was 30.00 words per minute in the initial test and 53.50 when the test was repeated. This gain in rate of words per minute is significant.

Table 11.

Comparison of Errors Made in Oral Reading Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	29.58	11.5689	1.112	-25.72	1.184	21.61
II	50	3.86	4.2000	.4050			

The results of Table 11. indicate a significant decrease in errors made in oral reading by the experimental group. Comparing the results of Tests I and II, the mean number of errors for Test I was 29.58 and for Test II it was 3.86, a decrease of 25.72 errors.

Therefore, Tables 8 through 11 show that the experimental group made significant gains in all phases measured.

An Examination of the Gains made by the Control Group

Tables 12 through 15 show the gains made by the control group during the eight weeks of study.

Table 12.

Word Recognition Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	13.88	4.6163	.444	5.22	.781	6.69
II	50	19.10	6.6581	.642			

The above table shows that the control group had a mean

score of 13.88 words recognized correctly in the initial test and a mean of 19.10 words in the final test, which was a gain of 5.22 words recognized correctly. This gain was significant.

Table 13.

Visual Perception Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	8.96	2.9564	.284	1.82	.490	3.71
II	50	10.78	4.1533	.400			

Table 13 shows that in visual perception, the gain made by the control group was not significant. The mean score of words perceived correctly was 8.96 and 10.78 words in the final test. The gain made was 1.82 words perceived correctly.

Table 14.

Rate of Speed, Words per Minute, Oral Reading Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	33.40	12.159	1.172	5.90	1.702	3.470
II	50	39.30	12.757	1.229			

Table 14 shows a mean rate of 33.40 words read per minute by the control group in the first oral reading test and a mean

of 39.30 in the second test. The mean gain during the eight weeks was 5.90 words per minute. This gain was not significant as is indicated by the critical ratio of 3.470.

Table 15.

Errors Made during Oral Reading Tests I and II

Test	No.	Mean	Standard Deviation	P.E.M.	Mean Gain or Loss	P. E. Diff.	Critical Ratio
I	50	26.22	12.088	1.163	-10.46	1.625	6.43
II	50	15.76	11.752	1.132			

Table 15 indicates a significant decrease in the number of errors made in oral reading after eight weeks of work in quick perception drill conducted as the individual classroom teachers considered most effective. The mean number of errors made in the first test was 26.22 and 15.76 in the second test, denoting a decrease of 10.46 errors.

The control group made gains in all phases of the study which covered eight weeks of work in quick perception drill. The gain made in word recognition and the decrease in errors in oral reading were significant. The gains made in visual perception and rate of speed in oral reading were not significant.

Comparison of Final Measures on Groups Studied

The following five tables, numbers 16 through 20, show a comparison of the gains made by both groups at the end of eight weeks of experiment. Four of the tests were informal and

constructed by the writer, these results are recorded in Tables 16 through 19. The fifth test was a standard group primary reading test and the results obtained are shown in Table 20.

Table 16.

Word Recognition Test II

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. between Means	P. E. Diff.	Critical Ratio
Exp.	50	23.66	6.0150	.579	4.56	.864	5.28
Con.	50	19.10	6.6581	.642			

Table 16 shows the results obtained when the word recognition test used in the initial battery of testing was repeated at the close of the study. The mean score for the experimental group is 23.66 and 19.10 for the control group. The difference between the means is 4.56, a significant difference in favor of the experimental group.

Table 17.

Visual Perception Test II

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. between Means	P. E. Diff.	Critical Ratio
Exp.	50	24.20	6.8059	.656	13.42	.768	17.48
Con.	50	10.78	4.1533	.400			

This table compares the gains made by both groups when the

visual perception test used in the initial battery of testing was repeated at the end of the study. The words were flashed at the same rate of speed, $1/5$ of a second. In this instance the mean score for the experimental group is 24.20 words correct as compared to 10.78 words correct for the control group. The difference between the means is 13.42, a gain in favor of the experimental group. This difference between means is significant.

Table 18.

Rate of Speed, Words per Minute, Oral Reading Test II

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. between Means	P. E. Diff.	Critical Ratio
Exp.	50	53.8	18.447	1.774	14.5	2.159	6.723
Con.	50	39.3	12.757	1.229			

This table notes a comparison of gains in the rate of speed made by both groups on the informal oral reading test given at the end of the experiment. The mean rate of speed for the experimental group is 53.8 and 39.3 for the control group. This denotes a difference of 14.5 words read per minute, a superiority in favor of the experimental group. This difference is significant.

Table 19.
Errors made in Oral Reading Test II

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. between Means	P. E. Diff.	Critical Ratio
Exp.	50	3.86	4.2000	.4050	-11.90	1.203	9.880
Con.	50	15.76	11.7516	1.132			

Table 19 shows the comparison of errors made by both groups in the final oral reading test. The mean number of errors for the experimental group is 3.86 and 15.76 for the control group. The difference between the means is 11.90 in favor of the experimental group and is significant.

Table 20.
Gates Primary Reading Test, Types I and II, Total Scores

Group	No.	Mean	Standard Deviation	P.E.M.	Diff. between Means	P. E. Diff.	Critical Ratio
Exp.	48	50.875	14.788	1.4530	-1.025	2.110	.487
Con.	50	51.900	15.654	1.5075			

This table shows the results made on a standard group primary reading test. The mean score for the experimental group is 50.875 and 51.900 for the control group. The difference between the means is 1.025 in favor of the control group but it is not a significant difference.

The preceding tables indicate that there were no significant differences in mentality, chronological age, or reading achievement between the experimental and the control groups at the start of the experiment. In general, any differences extant were in favor of the control group.

During the eight weeks of experiment both groups made gains in every phase. In each instance the gains made by the experimental group were significant. Those made by the control group were significant in word recognition and in the decrease of errors made in oral reading. The gains this group made in rate of reading and in visual perception were not significant.

In a comparison of the final measures on both groups studied, the differences were significant on all informal tests and were in favor of the experimental group. The standard test scores showed no significant difference, the slight existing difference, however, was in favor of the control group.

Chapter IV

Summary and Conclusions

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Review of the Problem: The purposes of this study were to develop and evaluate a method of quick perception in beginning reading. The problem was first, to determine a vocabulary for the purpose of conducting a systematic review in quick perception; second, to construct contextual material which, when supplied by the teacher, would be most apt to produce attention to meaning as well as the rapid perception of the desired vocabulary; third, to conduct a systematic review with a group of children controlled by an equated group to find out whether there are any significant differences in the ability to perceive rapidly in a given situation and general reading achievement.

Review of Experiment: The experiment was conducted upon fifty first grade children selected for similarity in background, mentality, chronological age and academic achievement, and controlled by an equated group of the same number. The data compiled from the initial tests showed no significant differences between the two groups in mentality, chronological age, or rating on standard and informal achievement tests. In general, the slight difference extant was in favor of the control group.

The children in the experimental group were given eight weeks of systematic review which occurred ten minutes a day, three times a week. The vocabulary was presented in context devised to keep meaning and usage high yet call attention to word formation. This was done by embodying it first, in

contextual clues so sensitive that the word desired could be supplied from auditory perception alone. Next, the level of perception was raised and the context offered only partial clues, however, meaning made the choice narrow and any familiarity with the formation of the word invoked the correct response. Last, the level of perceptual difficulty was raised to the point where it offered no actual clues, hence the word or phrase had to be actually read in order to be supplied correctly.

The children in the control group were given an equal amount of extra practice in visual perception and word recognition in the manner deemed most beneficial by their individual classroom teachers.

Conclusions:

1. Visual Perception: At the close of the experiment the children receiving the systematic review had made a mean gain of 16.8 words, while those in the control group had a mean gain of only 1.8 words. In a comparison of the mean scores of both groups in the final test, the difference was 13.42 in favor of the experimental group.

2. Word Recognition: After eight weeks both groups showed significant gains in word recognition. The mean gain of words recognized by the experimental group was 11.66 and 5.22 for the control group. However, the difference be-

tween the means in the final test was 4.56, denoting a significant gain in favor of the experimental group.

3. Oral Reading Rate: At the beginning of the study the experimental group read 30.00 words per minute and at finish 53.80 words, showing a mean gain of 23.80 words. The control group read 33.40 words per minute in the beginning and 39.30 words per minute at the end of the experiment, thus making a mean gain of 5.90 words per minute. Comparing the mean scores of both groups in the final test, the experimental group read 53.8 words per minute as compared with 39.3 words read by the controlled group. The difference between the means was 14.5 words per minute in favor of the experimental group, which indicated a significant gain.

4. Errors in Oral Reading: The children in the experimental group made a mean score of 29.58 errors in the initial oral reading test and a mean score of 3.86 errors in the final test, showing a decrease of 25.72 errors.

The control group had a mean score of 26.22 errors in the initial test and a mean of 15.76 errors in the final test, indicating a decrease of 10.46 errors. Thus both groups made significant decreases in the amount of errors made in oral

reading.

However, comparing the difference of mean scores appearing in the final test, the experimental group showed a decrease of 11.90 errors over the control group.

5. General Reading Achievement: There was no significant difference in the ability displayed by the two groups in general reading achievement as measured by a standard reading test. The gains in the eight week period were not sufficient to affect the standard test score.

In every phase of the study in which significant gains were made during the period of final testing, with the exception of Visual Perception, the control group made them as well as the experimental group. However, the difference between the gains made by the two groups was significantly in favor of the experimental group.

Observations made during period of instruction:

1. There seemed to be no specific reason why the children were able to recognize words at 1/10 of a second on one day and on another 1/5 of a second was the fastest speed of recognition possible, other than, on some days the class was generally more alert. All instruction took place between the hours of 9:00 and 10:30 a.m. so fatigue would be as small a factor as possible.

2. Children enjoyed the contextual clues supplied by the

writer, but preferred to make up original sentences when the words were flashed in isolation rather than give back that context which had been supplied for them. Perhaps this was due to classroom training in making up original stories using given words.

3. They preferred the phrase drill to that of the single words, undoubtedly due to the fact that nearly all classroom work both in presentation of new and review words took that form.

4. The stories used in the experiment held their complete attention but they tired visibly because of the physical and mental demands of watching the screen and supplying the words and phrases expected of them. Single sentences offered opportunity for relaxation at the end of each one. If the writer were to conduct the same experiment over again she would write more and shorter stories, and present them at least once a week. Two short stories during one lesson period would not cause as much fatigue as one long one. The children begged to have the stories read, just as stories, over and over again, however, such was impossible. Therefore it seems evident that it was not the quality of the stories that was at fault, rather, the demands that their length made upon the children physically.

5. The timid and reserved children developed new attitudes within the second week. They experienced constant success in the work and became intensely interested in the mechanism of the lantern and shutter; both factors being conducive to self-

forgetfulness, thus permitting whole-hearted participation in the work.

6. Every child participated every day. At the end of the second week it was necessary to check their spontaneity rather than to urge them to cooperate. At least once during the weeks of experiment every child operated the cable release controlling the shutter. The first children in each class given this opportunity were those who were timid or hesitant about participating for fear of failure. From that moment on, the period took on a new dignity and importance, and their manner of participation reflected it.

7. All children were reticent about even guessing a word flashed at 1/15 or 1/25 of a second. At all other times their manner was one of complete assurance or equal ignorance, the latter being due to non-recognition of the word even though it was exposed on the screen for scrutiny. Therefore it seemed unwise to permit the element of guessing even at the expense of perhaps increasing the speed of visual perception. Because of this, the "I don't knows" were almost always followed by "Please tell me your story again and then I will know" or "Tell me this time and let me look again, then I will remember."

8. There were never any cases of discipline, nor after the first week did the children have to be cautioned to watch the screen or they would miss the word.

9. It was possible to keep rapport high at all times and a quality of spontaneity and fun permeated the work constantly.

The children often begged for one more "story", meaning sentence, or a few more minutes, offering to give up their recess if the writer would stay and "play" with them.

10. From the delight and satisfaction of running the lantern during the review at the end of each period, the writer would be interested in carrying out further experimentation in which different children made up stories, actually prepared the lantern slides and then presented them to the class.

Possible Classroom Uses:

1. Flash a word on the screen and have children draw a picture describing it. Later flash two words, for example, "boy" and "ball", even later a phrase such as "away she ran". This would offer opportunity for improving mental concepts as well as increasing visual perception. Also it would be a lot of fun.

2. New words occurring in the lesson could be presented as well as the review words and an association not offered by the printed text could be made. This would be especially useful in social studies.

3. Spelling and correct language usage could be improved by the use of the lantern and shutter, with or without contextual clues; however, the writer would not present anything in isolation unless she wished the children to supply the association.

4. If possible have a lantern and materials for making slides in the room. Train the children to operate the lantern and make their own slides correctly. No part of the mechanism is too complicated for a child in first grade to manipulate, and

it has been the writer's experience that no child will abuse an expensive machine if he has been taught to handle it with respect.

Let the children make slides of material vital to them and present them to their classmates during a period of free activity. Also children can conduct their own review lessons by allowing a child who knows the words to work with one who needs help, letting the child needing help operate the lantern only as long as he does so correctly and responds accurately. Let him flash a word or phrase and then use it correctly in a sentence, the second child checking recognition and usage.

5. The lantern and shutter involve a good deal of expense; therefore, they are not always available for classroom use. Consequently, the writer would suggest making flash cards to be used with the contextual clues, or some type of "homemade" tachistoscope.

If there is a lantern available, slides may be made as previously described of cellophane and put between glass that has been hinged with adhesive tape. This will fit into the lantern as effectively as regulation glass slides or the masks supplied by the Keystone View Company, Meadville, Pennsylvania.

6. It would be distinctly beneficial if carefully graded contextual material to be used in quick perception exercises was available on the market at a small cost. This material should embody only a minimum essential vocabulary, then it would be of value regardless of the reading system in use.

Further Study:

1. The same study could well be repeated employing contextual clues constructed to more sensitively define the levels of perceptual difficulty. The stories should be short and used at least once a week after the third week. The first ones including only a very few words or phrases and working up to longer ones, though the writer is not certain that longer ones are necessarily of sufficient value to warrant that much concentration on the part of the child at one time.

The plan of instruction should include opportunity for checking individual children's progress. Phrase reading should be measured for gains. Some provision for a carry-over into silent reading should be devised and supplied. The above study indicated that there was no relationship between general reading ability and quick perception in a given situation. In this case, the general reading ability was measured by a standard primary reading group test which involved silent reading exclusively.

2. A study in quick perception in beginning reading could be made in which the vocabulary was comprised of new words.

3. It would be interesting to note what gains could be made in quick perception in an atypical class.

APPENDIX



NAME

WORD RECOGNITION

SCORE

I an <u>and</u> a all at	16 oar over owner our oven
2 <u>are</u> arm any ask art	17 grain against ago around <u>again</u>
3 from <u>for</u> fort far fur	18 <u>back</u> blue blow block black
4 an <u>it</u> is on in	19 <u>out</u> oat oak owl oaf
5 <u>little</u> litter letter latter litre	20 last lost lust <u>first</u> fist
6 on <u>one</u> our own out	21 <u>give</u> gore gave game gone
7 <u>them</u> then their than there	22 <u>know</u> knew king knight knot
8 were won wan <u>was</u> saw	23 mottle more <u>mother</u> move moth
9 your yew you <u>yes</u> yen	24 place <u>please</u> pleasant plays peas
10 brick <u>black</u> back blue buck	25 spool spoon <u>school</u> schooner stool
11 <u>came</u> come cone cane care	26 think bring fling thump <u>thing</u>
12 for found frog farm <u>from</u>	27 unto untold uncle <u>until</u> untie
13 his <u>her</u> him hers here	28 wend <u>went</u> want wen
14 <u>just</u> jest jump jug jist	29 yen <u>year</u> yew yes you
15 made mask <u>make</u> mode makes	30 which <u>where</u> when whither whether

NAME	VISUAL PERCEPTION			SCORE
1 pig dig rip <u>big</u> dip	16 <u>some</u> same sane			
			sent shame	
2 hot <u>not</u> nor hat nut	17 <u>them</u> they then			
			there than	
3 <u>see</u> sea bee seen sue	18 tow too toe			
			ton two	
4 their tree three <u>there</u> them	19 went when whip			
			whet whim	
5 when wend <u>went</u> west want	20 dean bean beet			
			<u>been</u> beer	
6 <u>with</u> which white while wither	21 door poor moor			
			hoar boor	
7 again <u>away</u> way about awful	22 fend find fine			
			fund fond	
8 came cane <u>come</u> comb cone	23 letter <u>laugh</u> caught			
			latter high	
9 <u>about</u> bout rout bound abound	24 ever heave lever			
			<u>never</u> sever	
10 free farm for frog <u>from</u>	25 there where fair			
			flair <u>their</u>	
11 hear fear hoar bear <u>here</u>	26 until upper umpire			
			uncle under	
12 now haw hum <u>how</u> hew	27 every very ever			
			vest vent	
13 along <u>long</u> strong lung among	28 year your ear			
			yearn yarn	
14 man any money honey <u>many</u>	29 three free <u>tree</u>			
			flee flea	
15 please play plop pay pray	30 with <u>white</u> write			
			when while	

Individual Oral Reading Test I

THE SURPRISE

Jim wanted to go out and play.

He looked at the rain. It just came down faster and faster on the window.

Then he saw Judy. She had a box in her hands.

"What have you?" cried Jim.

"Guess," said Judy. "It is a surprise."

"Is it a game?"

"No," said Judy, "but you can play with it."

"Is it alive?"

"Yes, and it has long ears."

"I know," cried Jim. "It is a rabbit."

Judy opened the box. There was a little gray rabbit.

"Oh," cried Jim, "Let's build a house for it."

Individual Oral Reading Test II

THE NEW SURPRISE

"Judy, I have a surprise for you."

"What is it?" said Judy.

"You will have to guess," said Jim.

Judy looked at Jim. He had nothing in his hands.

"I can not guess," she said.

Jim laughed and said, "The surprise is not here,
"Come with me."

Judy went with Jim. He took her to the rabbit
house. She saw the gray rabbit and she saw the house
they made out of a big box.

"Where is the surprise?" she said.

"Look," cried Jim.

Three little gray rabbits came out of the house.
The children played with the baby rabbits for a long
time.

DAY I

1. Have you ever seen a clown jump through a hoop? Do you think you could do it?
2. Often at a large fire, the firemen have to work very hard to put the fire out.
3. The stars shine all during the day but it is so light we cannot see them.
4. If you had to travel a long distance and could go by train or airplane, which would you choose?
5. Jane has two pets, a cat and a rabbit.
6. The farmer had a horse, a cow, a pig, and a lamb.
7. All the children in camp were expected to be able to jump off of the float and swim to shallow water before the summer ended. At first a great many were afraid to jump into the water, however before long most of them would, and by the end of summer all of them were diving and swimming.
8. The first time you dive under water it is difficult to open your eyes and actually see anything.
9. Mary was lost and no one could take her home because she did not know her address.
10. If someone should get hurt on the playground would you know what to do?

DAY 2

11. Frank wanted to go out and play in the rain. He found his raincoat and hat, but he could not remember where he had put his rubberboots.
12. Father took Bob for a ride in an airship. Bob said, "Of all the different kinds of rides I have had, this is the finest."
13. The children saw many horses at the circus, but only one giraffe.
14. After you have read the story will you please tell the others what it is about.
15. A camel kneels down when his master wants to get on his back.
16. When you go sailing, may I go with you?
17. The twins wanted to use candles in their hut, but father and mother both said they could not.
18. The paperboy did not deliver the newspaper this morning. If you go to the store will you please get one.
19. The little girls were frightened. They kept hearing a queer noise and couldn't imagine what it was.
20. The twins are not at home now. They are at the beach.

DAY 3

21. Some buildings are big, and some are little.
22. Do not leave your muddy rubbers here. Please put them over there.
23. I do not need to borrow your bicycle any more, because now I have one of my own.
24. My glue is all gone. Will you please get some at the store for me?
25. A canoe is little, an ocean liner is big.
26. Can you swim? I can.
27. This morning there were ten birds at the feeding station.
Right now six are eating there.
28. Daddy, if Jack goes horseback riding, may I go too?
29. Ted has a baseball, and I have one too.
30. There are some things you do only with your feet and some things you do with your hands. For instance, you run, walk, hop and jump with your feet, and you draw, play a drum and eat with your hands.

DAY 4

31. My last balloon is broken. You still have three left.
Please may I have one of yours?
32. The children all went away. David went swimming. Janet
went for a ride. Alan went to the movies.
33. The children enjoyed watching the trained seals do
tricks.
34. Lighthouses warn ships to beware of danger at night.
35. The boys next door invited us to go swimming with them.
So we went.
36. Look at those boats, they are racing.
37. The rabbit hole was so small the fox could not get in.
38. We need some more bait if we are going to fish very
much longer. Kenneth said, "I will get it."
39. I cannot reach that book, will you please pass it to me.
40. Bobby cannot go swimming today because he has a very
bad cold.

DAY 5

41. Let's run a race from this tree to that one.
42. If someone fell and his nose began to bleed, would you know what to do?
43. The dog chased the cat up the tree.
44. The children looked at the box of candy and then at mother.
She smiled and said, "You may have some."
45. All aviators are very carefully trained because the pilot of an airship must be ready for any emergency.
46. Helen is a girl, David is a boy.
47. The rabbit's tail is short, the monkey's tail is long.
48. Most people and animals sleep at night, but the owl sleeps during the day.
49. The tunnel goes under the river. The bridge goes over the river.
50. Jack's little brother was lost. Although Jack hunted and hunted, he could not find him.

DAY 6

51. Susan saw someone coming to the door and wondered who it could be.
52. All of a sudden the mouse saw a cat and ran away.
53. Bobby had been busy all afternoon making a cart. When his father came home, he said, "Daddy, see what I have made."
54. Sally looked at all the toys, then taking a doll, said, "This is the one I want."
55. Should anyone ever run across the street in front of an automobile? No.
56. Peggy saw a package on her chair at the table and said, "Goodness, what is this?"
57. Do it immediately, means do it now.
58. Peter and Jack had been told to always look both ways before crossing a street. Peter didn't, but Jack always did.
59. I'm sorry I didn't hear you, will you please say it again.
60. The boys were making so much noise that Ted didn't hear his mother call.

DAY 7

61. Have you ever watched carpenters at work building a house?
62. Tom tied the boat to the dock so it could not drift away.
63. After the kitten had climbed the tree it didn't know how to get down.
64. A sundial and a watch both tell time.
65. Do you know where honey comes from?
66. When courteous people want something, they say please.
67. Grandfather put his glasses away carefully so they would not get broken, and now he cannot remember where he put them.
68. Unless you sit very quietly in a canoe, you are apt to find yourself in the water.
69. The squirrel could not eat all the nuts he had found because there were so many.
70. If you saw a house on fire, what would you do?

DAY 8

71. There is a warning at most railroad crossings that says, "Stop, Look, and Listen."
72. The children enjoyed all of the animals at the zoo, but they liked the monkeys the best.
73. Christmas comes in December, but do you know exactly when?
74. When it is raining I cannot go out to play.
75. If you borrow any of my tools, please be sure to put them back.
76. Jack's dog is well trained. Whenever Jack whistles the dog will always come.
77. At present travelling by train is generally considered safer than travelling by airship.
78. The dog has not had his supper; will you please give it to him?
79. Ann wanted to go to the aquarium and see all the different kinds of fish. So her mother took her.
80. The children went on a picnic and they all had a very good time

DAY 9

81. When the speed boat ride ended, Billy said, "Thank you, Dad, I have had a wonderful time."
82. I see you have a new bicycle. When did you get it.?
83. If you had to make a fire without matches, would you know how?
84. Alan is a boy, his father is a man.
85. If you had to spend a night in the woods and did not have a tent, would you know how to make a shelter?
86. There is too much work for you to do alone. I would like to help if you will let me.
87. It is getting dark. The car should have parking lights, will you please go out and put them on.
88. When I blow the whistle I want you all to come here.
89. Janet went to the zoo. Bears, lions, monkeys and raccoons were some of the animals she saw.
90. Jack, do you want to go to the lake? We won't have to walk Mother is going to drive us.

DAY 10

91. If I tell you a secret will you promise not to tell?
92. The cat could not get into the mouse hole, so he sat down beside it to wait for the mouse to put his head out.
93. Will you please speak louder, I couldn't hear what you said.
94. When courteous people have something done for them, they always say thank you.
95. It is very cold, put on your coat.
96. The airplane circled the field twice, then made a perfect landing.
97. Fish cannot live out of water. Can you tell me why?
98. A dog has four feet, a boy has two.
99. David is sick, but he does not have to stay in bed.
100. How did you get here so quickly? I came by automobile.

DAY 11

101. Fred likes to swim, but he does not like to skate because he falls down so often.
102. Jim fell off of his bicycle and then Judy fell off of hers, too.
103. May I have two pieces of candy? No, I said you could have just one.
104. The fox was too big to crawl into the rabbit hole.
105. If you like someone, that person is your friend.
106. "Get up on the hay," called the farmer. So the children got up.
107. You will not scare the rabbit if you keep very still.
108. Jim and Judy felt sick because they had eaten too much.
109. Billy ran across the street in front of an automobile. His mother scolded him and he promised never to do it again.
110. The sun shines during the day, the moon shines at night.

DAY 12

111. Hang on tightly or you will fall off.
112. At night children go to bed.
113. Judy put up first one hand and then the other one.
114. Dogs and cats have to be trained to be friendly, or they are enemies.
115. Alice went to Judy's birthday party and took her a present.
116. Carrots are orange, beets are red.
117. The dog was chasing the automobile so the man had to stop and send him home.
118. A mouse is afraid of a cat.
119. If you want a rabbit to eat out of your hand you must keep very still.
120. It is time to go home, please tell the children to put on their coats and hats.

DAY 13

121. Children have to be taught to swim but most animals know how.
122. Look out of the window and tell me how many different things you can see.
123. David's pet has long white ears, so it must be a rabbit.
124. The large animal that sleeps all winter is a bear.
125. "Mother, have I time for another slide? "Yes, you may slide just once more."
126. On a clear sunny day the sky is blue.
127. That knife is very sharp, be very careful or you will get cut.
128. Please go quietly, Mother is lying down and I think she has gone to sleep.
129. David is a boy, Jean is a girl.
130. Most cats run when they see a dog.

DAY 14

131. When you go out please be sure to close the door.
132. The dog is hungry, please give him something to eat.
133. Is anyone going to the store? "Yes," said Billy, "I
am."
134. Have you seen my ball, I can't find it.
135. We are going swimming, can you come? I don't know,
I'll have to ask my mother.
136. The winner of the race is the one who gets there first.
137. On a rainy day the color of the sky is gray.
138. Here comes the mailman with a letter.
139. Cats like to drink milk.
140. Children learn to read in school.

DAY 15

141. The sky is almost black, do you think it will rain soon? Yes.
142. The sun is yellow, the snow is white.
143. Mother has been looking for you, where have you been?
144. The car won't go, you will have to walk to the store.
145. When the leaves on a tree die they turn brown.
146. A train can go faster than a car.
147. Will you help Ann get her kite, it is caught in a tree.
148. Yesterday the weather was bad; today it is fine.
149. Who has the book about airships? Jack has it.
150. Fish live in water, people live on land.

DAY 16

151. The sun rises in the morning .
152. There are twelve months in a year.
153. Father is not home now, he has gone to work.
154. The opposite of day is night; the opposite of white is black.
155. I don't know where Dick lives, Ted will show you the way.
156. Where is the football? Fred took it.
157. Skipper and Spot are dogs; Evelyn and Allen are children.
158. We are waiting for father. We can't go until he gets home.
159. Ted has worked hard all day so he is very tired.
160. The children are enjoying the party, hear them laugh.
161. I have never seen that dress before, is it new?
162. It is cold, Paul should keep his hat on his head.
163. Alice has gone away with her father and mother.

DAY 17

1. When you have finished reading the story will you please tell us about it.
2. We are going swimming, why don't you ask your father if you can go?
3. Ted has a big kite. I have a little one.
4. I want to go coasting too. Please wait for me
5. The dog chased the cat up the tree.
6. Have you seen my sister? Yes, there she is.
7. Where have you and Bob been all day? We went fishing.
8. Mother can't find her scissors, do you know where they are? Yes, I have them.
9. Will you please bring me the book on the library table. There are two, which one do you want?
10. Mother have you seen Dad, we looked out in the garage but he was not there.
11. Dad, we have been making a tent, if you look out of the window you can see it.
12. We have been helping Jack all afternoon, he has lost his big dog.
13. The children are not here now, they are out in the sailboat.
14. I went for the mail yesterday, will you go today?
15. Paul, do you know anyone who can sail a boat? Yes, Jack says he can.
16. "Mother," said Jane, as she finished the dishes, "Is there anything else you want me to do?"
17. No, thank you, Jane," answered mother, "that is all."

DAY 18

18. Joan is going out, do you want her to buy anything at the store?
19. There are some bundles in the car, where do you want Bob to put them? Please tell him to put them in the house.
20. I am tired of playing games, now what can I do?
21. Jean, if you will play house with me, I will let you have one of my dolls.
22. The dog's feet are all muddy, do not let him jump on you.
23. It was the first time the kitten had ever climbed a tree. The children watched it as it went slowly up and up to the very top.
24. Jack hunted and hunted for you this morning. Where did you go?
25. That chair is not safe to stand on, please get down.
26. I don't know how you did it, please do it again.
27. Billy can't go to the store alone, will you please go with him?
28. I have forgotten my key and all of the windows are locked, so I don't know how we will get into the house.
29. Dad, we want to go sailing this afternoon, will you be able to go with us?
30. I wasn't watching when you tied the boat, please show me how you did it.
31. Mother has gone away this afternoon and I don't know when she will be back.
32. Don't ever do it again, however, you are excused this time.
33. Don't wait any longer for Bill, he has just telephoned to say he can not come.
34. Those two roosters are fighting again, just look at them.

DAY 19

35. Let's go fishing, I have two lines and I'll give you one.
36. Do you sell eggs? Yes, but I haven't any now.
37. Mother may we have some apples? Yes, but please don't take too many.
38. You can't go horseback riding this afternoon. Your mother said so.
39. Bob, did you see the airship this morning? Yes, I saw it.
40. How many loaves of bread do you want? I want two.
41. Jack is a little boy, his grandfather is an old man.
42. Joan is a girl, Peter is a boy.
43. Don't leave your bicycle there, please put it away.
44. Ann is at the door, will you please let her in.
45. I am going out now, good-by.
46. Judy is making sandwiches for the picnic, and I will make some too.
47. Has father come home yet? Yes, he came this morning.
48. Sally stood up in the canoe and fell into the water.
49. How far is it to school from your house?
50. Have you seen my puppy? Yes, he just ran over there.
51. Where are you, Jane? Here I am.

DAY 20

52. Thank you for the ride, I certainly had a good time.
53. Where did you go? You have been gone a long time
54. I will not do it unless you tell me why.
55. I don't want to go to the store, but I will if no one else will go.
56. A square knot is easy to tie, you do it just like this.
57. My dog is not well trained. Will your dog come when you call?
58. The sun is shining now, why don't you run out and play?
59. The children played with the blocks, and made a house.
60. If you suddenly discovered your house on fire, what would you do?
61. Wild animals go hunting at night but stay close to home all day.
62. Dick, when you go out will you please get me some sugar? I have to go to the store for Dad this afternoon, I will get it then.
63. At the zoo, the children saw a little brown bear.
64. The American flag is red, white, and blue.
65. Where is my ball? I do not know.
66. When the children have finished playing, ask them to put away their things.
67. I have many friends but Jack is my best friend.
68. Jim likes his new bicycle very much.

DAY 21

69. The man was driving a black car.
70. Have you seen my dog? I cannot find him.
71. I cannot go with you until I ask mother.
72. Jane has a black cat and a gray rabbit.
73. When Richard came home his mother said, "Where have you been?"
74. Father is not home, he has gone to work.
75. That must be a funny story, hear the children laugh.
76. Tom isn't up yet, he is still in bed.
77. The children haven't come home from school.
78. Please be very quiet and let mother sleep.
79. The sun rises in the morning.
80. When a kitten grows up, it is a cat.
81. That knife is very sharp. Ann used it and got cut.
82. Please wait until I send this letter.
83. Those are not bear tracks, they were made by a dog.
84. Someone is knocking, will you please go to the door.
85. We are hungry, may we have something to eat?

DAY 22

86. We will have a picnic tomorrow if it is a fine day.
87. Ted won the race. He came in first.
88. Bob is a boy, Janet is a girl.
89. Look and see if the cat has some milk.
90. A dog has four feet but just one head.
91. The bird's nest is in a tree.
92. Jack went to Jim's party and took a present.
93. Ned lives here. Jim and Judy live over there.
94. We will be late for school if we walk.
95. The bus stopped and two men got off.
96. Billy ran across the street without looking but he promised never to do it again.
97. Bob has an old bicycle but mine is new.
98. The little boy had lost his way.
99. You cannot have both toys. You may have one or the other.
100. Noises always sound louder when you hear them in the night.
101. The children hadn't seen their grandfather for many years.
102. Can you go skating? My mother said yes.

DAY 23

FOGBOUND

It was too foggy to play deck tennis, so Bob and his father were inside playing ping pong. The game was even more exciting than usual because the ocean was rough and the boat pitched badly. Consequently Bob never could be sure which direction the ball would go. Suddenly the boat lurched and then seemed to stand still.

"What happened, Dad? Why are we stopping here?" said Bob as he let the tiny white ball roll unheeded to the floor.

"I don't know," replied his father. "but I do not believe we are in any great danger."

As Bob's father spoke, a steward appeared at the door and said, "There is no danger, Sir, the captain has ordered the boat stopped temporarily because of the density of the fog. I would suggest, Sir, that you and your son finish your game."

"Shall we finish, Bob?" asked his father.

"No, Dad, let's go out on deck."

"Very well," said his father, "when you get your coat, please bring me mine. I will wait for you in the lounge."

In a few minutes Bob was back with both coats. Then they went up on deck. It was so foggy there that they could not see the water when they looked over the side of the ship.

The other people looked like big black shadows that appeared for a moment almost on top of one and then immediately disappeared again in the fog. They were no longer frightened because the ship had dropped anchor, but were having a good time trying to guess who the gray shadows were that kept looming up in front of them. Everywhere gay voices called to one another through the fog.

All this time the fog horn was blowing steadily, and occasionally the people could hear answering horns on boats in the distance.

"How long do you think we will have to stay here, Dad?" asked Bob.

"I don't know," replied his father. "I imagine this fog is caused by icebergs floating south. This is the time of year that they break up and begin to drift. When warm air is chilled by something cold, fog is created. The steward did not say so, but I think he meant it would be dangerous to proceed in this fog because of the danger of hitting an iceberg."

"Dad, let's go up to the radio officer's cabin and ask him about it. He should be going off duty soon and he will tell us. He is my friend."

Slowly the two went up to the deck where the radio room was located. Bob's friend was just hanging up his

earphones and giving final instructions to the officer that was relieving him.

"Hello," called Bob excitedly, "are we stopping because we might hit an iceberg? Dad says so."

"Hello, Bob," returned the officer. "How do you do, Sir," he said to Bob's father.

"My son is rather excited, it is the first time he has ever been on board ship in a heavy fog," answered Bob's father. "I explained to him that the fog may be due to the nearness of floating icebergs, and perhaps the captain considered it unsafe to proceed in this fog because of the danger of hitting one."

The officer grinned at Bob, "Not quite as bad as that," he answered. "Two days ago the ice patrol radioed that we would run into a fog off the Grand Banks, because the ice has begun to break up and drift south. However it is still too far north to be a hazard to the ship. The captain has ordered the boat anchored until the fog lifts because we might run into a small fishing boat. There is a fleet near here, and although all the boats should be well out of our path there is the possibility that one has drifted and we might hit it. This fog probably won't last more than one day longer, then again it may last a week."

The officer grinned as Bob's eyes widened. Then as

he turned to go, he said, "Guess I'll get a little sleep. See you later if you want to send a radiogram to the people at home telling them you are safe but fogbound."

When night came the fog was just as thick as ever and the boat was still anchored. Bob thought the throb of the engines kept running to keep the boat steady sounded like the purring of a giant cat. When he awoke in the morning the boat was still motionless.

Late in the afternoon Bob's father said, "I am going to send a radiogram to mother explaining our delay. I am afraid she will worry. I see you have your bathing suit, are you going to take a plunge in the pool, or will you come with me?"

"I will come with you. I want to watch the officer send the message. He will send it immediately if he isn't busy. I can take a plunge later."

"Very well," said his father, "come along."

"Please wait, Dad, until I put my suit back in the cabin."

After the radiogram had been sent, Bob and his father went out on deck. The wind was beginning to blow, which meant that before long the fog would lift.

DAY 24

LIGHTHOUSES

Ann and David stood on the deck of the boat with their father. It was dark and they were watching the flashing light from a lighthouse in the distance.

"It seems to make a circle as it flashes, Dad," said David. "Why?"

"That is because it is a revolving light, and we are near enough to shore to see the beam as it swings around."

"We have seen three lights tonight, Daddy," said Ann, "and they were all different. I should think all lights in lighthouses would look the same."

"They are meant to look different, Ann. They are signs telling sailors exactly where they are. Sailors could not see sign posts such as we have on our streets, so they have lighthouses. The light warns them of hidden danger; then by the way it flashes, or its color, it tells them exactly where they are."

"Do you know exactly where we are, Dad? Which one is that?" asked David.

"That is Highland Light," said his father. It is one of the most powerful lights on the Atlantic seacoast. On clear nights, ships over forty miles from shore can see it."

"Dad," said David, "who made the first lighthouse?"

"I am not sure," answered his father, "but one of

the very first lighthouses was built in Egypt, many years ago. It didn't look at all as the lighthouses do that you have seen tonight."

"What was it like, Dad?"

"Tell us about it, Daddy," begged Ann.

"Very well," said their father, "but lets go in where it is warmer. There will be just time enough for the story before you have to go to bed."

"Daddy," said Ann, "please lets stay out here where we can see the light while you are telling the story. I like to watch it flash."

"May we?" asked David. "I will go in and get our sweaters, then we will be warm enough."

"Very well," said his father.

"David," said Ann, "I have one sweater, just bring me my little one."

"Don't bring anything for me," said his father, "I am warm enough, thank you."

"Hurry, David," called Ann, as he went inside. She was anxious to hear the story.

Soon David was back with the sweaters.

"The lighthouse that I am going to tell you about," said father, "was built many hundred years ago. It was on an island off the coast of Egypt. It was supposed to have been built of four towers, standing one on top of the other. Those on the bottom were square, and the ones on top were round."

"The people were not sure what they should use to build the lower towers because the water was generally very rough and they were afraid it would damage them and cause the light to fall into the sea. So, before they started to build, they tested different kinds of material. They dropped large pieces of iron, lead, gold, silver, granite stone, brick, and glass into the ocean and left them there. After a while the workmen took them out of the ocean and examined them for damage. Can you guess which one was damaged the least?"

"Iron," said David promptly.

"Gold," said Ann.

"You are both wrong," said their father. "Glass proved to be the strongest and showed the least damage from the rough waves and currents."

"Glass?" said both children together.

"Everyone knows glass breaks easily," said David, "I can even break some glass by squeezing it in my hand. Thats a fine thing to build a lighthouse with."

"Large glass blocks do not break easily," said his father. "When we get home I will show you a factory that has part of its walls made from glass bricks."

"What is the rest of the story, Daddy," said Ann. "I want to hear it."

"Well," said their father, books that have been

written about this lighthouse say that the lowest tower was made of glass and the rest of them were made of white marble.

"They built the lighthouse about four hundred feet high so that it could be seen by ships many miles away.

"There were no electric lights in those days, so they built a big fire in the top tower and put a polished piece of metal behind it. The piece of metal acted as a mirror, or reflector, and made the light seem much brighter, so it could be seen much farther away.

"At night the sailors were guided by a huge flame, but in the daytime even a huge flame cannot be seen very far away. So they made a smudge fire, which means a smokey fire, and the smoke could be seen almost as easily during the day, as the flame by night.

"To keep a big fire burning and never let it go out, one must have plenty of fuel on hand all of the time. It was difficult to get fuel up to the top of that very tall lighthouse. So the builders made a road that wound the outside of the towers like a staircase. It went up halfway to the top. Horses were driven up this road with loads of fuel, then it was pulled the rest of the way to the top by a pulley through a hole or shaft, cut through the middle of the top towers."

"Could we see that lighthouse now, if we went to Egypt, Dad" asked David.

"No," answered his father. It was destroyed many years ago by an earth quake, and although several times people have attempted to rebuild it, no one ever has."

DAY 25

SMOKY

Smoky was a little dog who belonged to a fireman. They lived in a room above the firestation. One night as Smoky lay curled up beside his master's bed, the bell rang. Smoky liked the excitement of fires and at first sound of the bell he jumped on the bed and pulled at the covers. All the firemen quickly put on their things and slid down the pole. Smoky, of course, couldn't slide down the pole, so he raced down the stairs.

Smoky dashed for his place on the seat beside the driver of the hook-and-ladder truck. He had not missed a fire in the last two years. His master slid into the seat beside him and started the motor. Smoky stood up and looked at the men climbing onto the back of the truck. When each one was in his place, Smoky gave three little barks. This was the signal for his master to go. Off they went with bells ringing and sirens shrieking.

The fire was in an old store. Smoke and flames were pouring out of all the windows from the two upper stories. Working swiftly, the firemen soon had hoses attached to nearby hydrants and were directing streams of water onto the burning building.

Crowds gathered rapidly but were held back by the police. Only news reporters, doctors, and ambulance drivers were

allowed to go anywhere near the building. One little boy pushed through the crowd and jumped up onto the hook-and-ladder truck, but Smoky barked so much that a policeman looked to see what was going on, and made the boy get down. A few minutes later two men climbed up beside Smoky to get a better view of the fire. Smoky growled and barked harder than ever. So the policeman made them get down. Smoky wagged his tail. He was doing his duty. He was protecting the fire truck.

Suddenly someone shouted that there was a cat in one of the rooms on the first floor. The firemen tried to reach in through the window and get it, but the kitten was so frightened that it just backed farther into the burning room. All the doors were cut off by smoke and flames and any minute now the building might collapse.

"Smoky will get it," said one of the firemen. He whistled, and Smoky jumped down from his seat in the truck and ran to his master.

"Cat," said his master, pointing to the window. "Go get the cat, Smoky. Good dog."

Smoky leaped through the window and quickly came back with a little kitten in his mouth. The crowd cheered. Smoky dropped the kitten at his master's feet and leaped back through the window into the smoke-filled room again. Instantly he came back with another kitten. The crowd

cneered again and the building collapsed. Everyone said Smoky was a hero.

Smoky rode home from the fire in his usual place but beside him sat a fireman holding the kittens. Every once in a while he would look at the two kittens and wag his long tail.

DAY 26

PRINCE

Prince and his master ran across the frozen pond. They had spent an exciting day hunting rabbits. Now it was late and Bill and his big gray shepherd dog were hurrying home.

Suddenly Prince raced ahead. The boy smiled as he watched his pet disappear into the bushes on the far side of the pond. It was a game they both liked to play. He knew that when he reached the bushes, Prince would jump out at him and pretend to knock him down. Sometimes the big dog did knock him down. Then over and over they would roll.

Bill was watching the spot where he had last seen Prince, so he did not see the crack in the ice until it was too late. The ice broke and into the water he went. As he fell, Bill grabbed at the ice and hung on. He quickly discovered that the water was not very deep. He tried to pull himself out of the hole but each time the ice broke under his weight.

"Prince," called the frightened boy. In a minute the dog was beside him. Bill grabbed the dog's collar.

"Back, boy," he said, "back, good dog."

Prince braced his feet and backed slowly away from the hole. Little by little the powerful dog drew the boy out of the water, and up onto the ice, but the boy was too eager and as he tried to stand up, his weight broke the ice again.

Both the boy and the dog sank into the icy water.

Quickly Bill helped Prince climb back onto the ice.

Again the dog tried to drag his master out of the water. It was impossible because the boy's wet clothing made him too heavy. The harder the dog pulled, the more his feet slipped on the ice. When the dog realized that he could not help Bill, he lay down on the ice beside him and put his nose on the boy's hand.

Bill was glad his pet would not leave him but it was getting late and he needed help.

"Prince," he said, "Go home. Get Father. Good dog. Go home." Prince looked at Bill and stood up. He ran slowly toward the shore then whined and crawled back to his master and licked his face.

"No, Prince," said Bill. "Go home."

Prince looked at Bill then put his tail between his legs and ran toward home.

The boy became more frightened as he saw the white tip of the dog's long tail disappear into the bushes, but he did not dare to move. He clung shivering to the broken ice with wet mitten hands.

The dog raced to the house and barked at the door. No one came. He ran around to the other door and barked again. Still no one came. Then the dog saw a man coming down the street. Like a gray streak he rushed at the man and grabbed

his coat sleeve. The man yelled and kicked the dog. Prince rolled over but immediately leaped to his feet and grabbed the man's sleeve again. Holding the sleeve in his mouth the dog tried to pull the man toward the pond.

"Mad dog. Mad dog," cried the man and kicked at Prince again. By this time, another man had come down the street. He recognized Prince and knew that he was usually a gentle and friendly dog.

"I know that dog. He is not mad," said the second man. "A mad dog would not grab your coat sleeve and hang on. He would snap and snarl and then run away. Prince is not mad. Something has happened and he is trying to tell you."

"What is it, fellow? What do you want?"

Prince let go of the coat and ran a short distance toward the pond. Then he stopped and looked back. The two men followed slowly. When Prince saw they were following him he ran along without stopping, but he never ran so far ahead that he was out of sight. Prince was not playing a game now.

When the men reached the pond they saw Bill. He was still standing in the cold water.

"Good dog," said the man who had called Prince mad a few minutes before.

The man went out on the ice as far as they dared. Then one man lay flat on his stomach and crawled over to Bill. Reaching out, he took Bill's hands and slowly dragged

him out of the water and up onto firm ice.

"Prince is a fine dog," said the men as they wrapped
the shivering boy in an overcoat.

"Yes," said Bill patting his dog's head.

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